

RSES**Screened, separable elbow connection system
400 A up to 24 kV****Features**

- The insulation of the connector is made of a highly modified silicone rubber characterised by high tracking resistance, elongation at break and non-flammability.
- A thin-walled screen is permanently bonded onto the insulation and protects the connection system against unintentional contact.
- The screened connector need not be removed for oversheath testing.
- The screened cable connector exceeds CENELEC HD 629.1 S1 requirements, which includes BS, VDE and other international specifications.
- Design fits 400 A bushings as specified by CENELEC HD506 S1, DIN 47636, EN 50180 and EN 50181.
- The wide application range covers cable cross-sections from 25 to 240 mm².
- Conductor connection with mechanical or deep indent compression lugs.
- Easily accessible capacitive test point.
- Few accessories required for system test.
- Complete kit including lugs facilitates installation and storage.



RSES

Screened, separable elbow connection system 400 A up to 24 kV



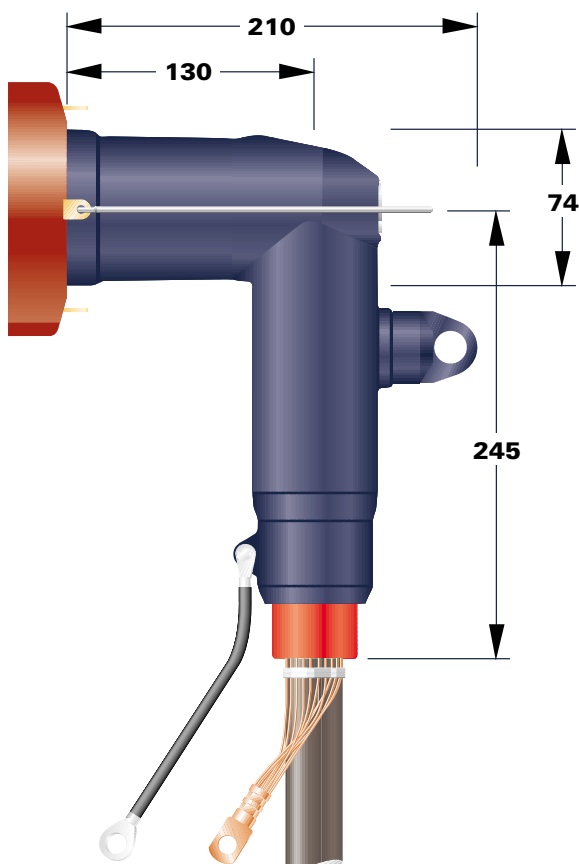
Raychem RSES screened, separable elbow connectors are designed to connect single- and three-core polymeric cables to medium-voltage gas-insulated switchgear and other equipment using CENELEC bushings specified for 400 A up to 24 kV.

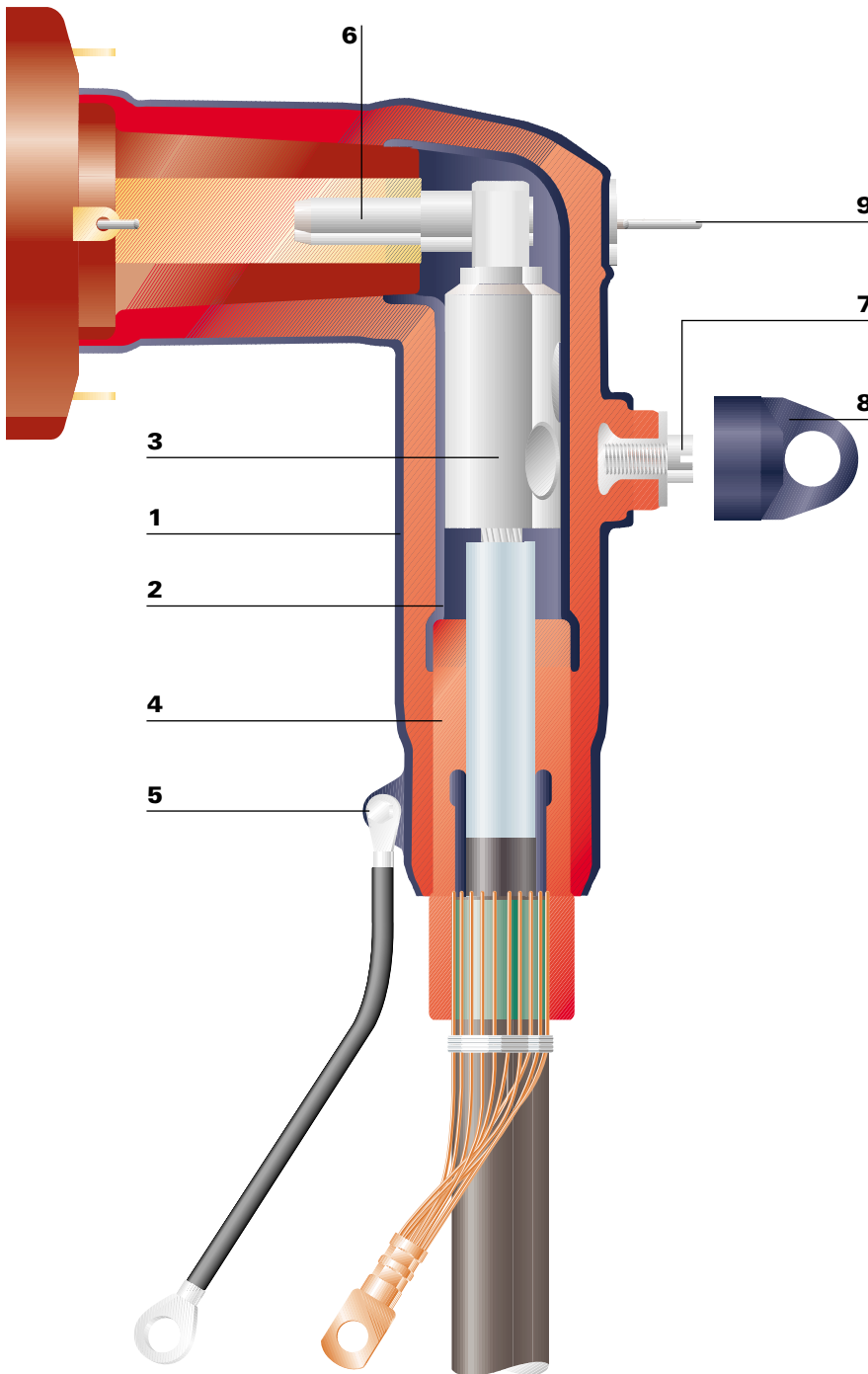
Made of a highly modified silicone rubber and protected by a thin-walled outer conductive screen connected to earth, RSES elbow connectors are equally suited for indoor and outdoor installation. Supporting a wide application range, the design incorporates one body and two stress cone adapters to cover all cross-sections from 25 to 240 mm². The overall and cut-back dimensions are designed to take up minimum space in the terminal box. RSES elbow connectors are equipped with a capacitive test point for determining whether the circuit is energised. This test point is protected by a conductive cap.

After cable preparation and lubrication, the stress control adapter is simply slid into place, followed by the screened connector body. These two components can be installed under virtually any conditions. A separable mounting system ensures easy installation of the connector onto the bushing. All kits include high-performance multi-range mechanical or deep indent compression lugs matching the design of the RSES elbow connector.

RSES Applications

Single connection
Material requested for 3 phases:
1 x RSES 54xx (kit)





1 Screened body
A thin-walled conductive outer screen is permanently bonded to the silicone rubber insulating material of the body.

2 Inner screen
A conductive inner layer, as a faraday cage around the compression or mechanical lug, prevents corona at rated voltage.

3 Compression or mechanical lugs
Specially designed deep indent compression lugs, as well as mechanical lugs with shear bolts for connecting either aluminium or copper conductor cables.

4 Stress cone adapter
Relieves electrical stress at the point where the cable screen is cut. The insulated section, extending beyond the wire shielding, provides a convenient point for oversheath testing.

5 Earthing eye and ground lead
Provides a connection point for earthing the screen.

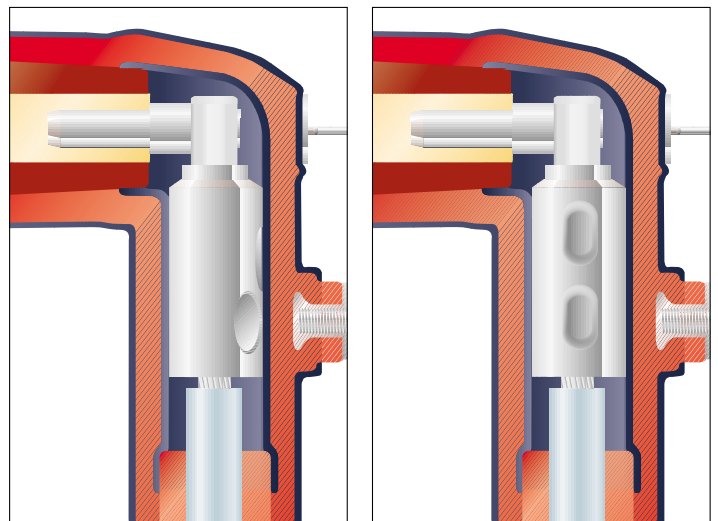
6 Pin
Silver plated copper electrode, designed and tested to carry 400 A continuous current. The hexagonal wrench (allen key) to fix the pin onto the connector is supplied with each kit.

7 Test point
The test point is used to determine whether the circuit is energised; alternatively it can be used for phasing.

8 Conductive covering cap
Electrical screen and protection of the test point

9 Stainless steel bail
Secures the elbow to its mating bushing

Note:
All applications as shown in the brochure need to have a mechanical support, based on the requirements for dynamic short circuit.



Technical data

Cable insulation diameter range	12.7 - 34.6 mm
Connector cross-section range	25 - 240 mm ²
Maximum system voltage	24 kV
Continuous current rating	400 A
Basic impulse level	125 kV
Partial discharge at 2 U ₀	< 5 pC
AC voltage withstand, 5 min	57 kV
DC voltage withstand, 15 min	76 kV
Thermal short circuit, 1 s	18.1 kA
Dynamic short circuit	48.5 kA

The adapters meet the international CENELEC HD 629.1 S1 specification.

Selection table**Screened separable elbow connection system with deep indent compression lugs**

Cross section mm ²	12 kV Diameter core insulation		Reference number Conductor material Al	Cross section mm ²	24 kV Diameter core insulation		Reference number Conductor material Al
	min	max			min	max	
25	12.7-	25.0 mm	RSES-5460	25	12.7-	25.0 mm	RSES-5460
35	12.7-	25.0 mm	RSES-5461	35	12.7-	25.0 mm	RSES-5461
50	12.7-	25.0 mm	RSES-5462	50	12.7-	25.0 mm	RSES-5462
70	12.7-	25.0 mm	RSES-5463	70	12.7-	25.0 mm	RSES-5463
95	12.7-	25.0 mm	RSES-5464	95	21.2-	34.6 mm	RSES-5474
120	12.7-	25.0 mm	RSES-5465	120	21.2-	34.6 mm	RSES-5475
150	21.2-	34.6 mm	RSES-5476	150	21.2-	34.6 mm	RSES-5476
185	21.2-	34.6 mm	RSES-5477	185	21.2-	34.6 mm	RSES-5477
240	21.2-	34.6 mm	RSES-5478	240	21.2-	34.6 mm	RSES-5478

Kits including DIN compression lugs are on request

Screened separable elbow connection system with mechanical lugs and shear bolts

Cross section mm ²	12 kV Diameter core insulation		Reference number Conductor material Al or Cu	Cross section mm ²	24 kV Diameter core insulation		Reference number Conductor material Al or Cu
	min	max			min	max	
150-240	21.2-	34.6 mm	RSES-5454	95-240	21.2-	34.6 mm	RSES-5454

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